

What is claimed is:

1. A video imaging system, comprising:
 - a camera for generating image data;
 - a control unit for controlling the camera;
 - a cable, for connecting the camera to the control unit, the cable including:
 - at least one channel for transmitting a control signal in the nature of camera operating information and the image data from the camera to the control unit, wherein the control signal and the image data are multiplexed on the at least one channel, and
 - a light guide for transmitting light to an object, wherein the camera is receptive of light reflected from the object thereby generating the image data; and
 - a jacket enclosing the at least one channel and the light guide.
2. A video imaging system, comprising:
 - a camera for generating image data;
 - a control unit for controlling the camera;
 - a channel for transmitting a control signal in the nature of camera operating information and the image data from the camera to the control unit, wherein the control signal and the image data are multiplexed on the channel; and
 - a light guide for transmitting light to an object, wherein the camera is receptive of light reflected off of the object thereby generating the image data.

3. The video imaging system as set forth in Claim 2 wherein the channel comprises two electrical conductors.
4. The video imaging system as set forth in Claim 2 wherein the channel comprise four electrical conductors.
5. The video imaging system as set forth in Claim 2 wherein the control unit generates a command signal for operating the camera.
6. The video imaging system as set forth in Claim 2 wherein at least the control signal and the image data are transmitted utilizing a digital serial protocol.
7. The video imaging system as set forth in Claim 6 wherein the digital serial protocol is Low-Voltage Differential Signaling.
8. The video imaging system as set forth in Claim 2 wherein the camera operating information comprises software programs, timing signal data, camera identification information or camera use information.
9. The video imaging system as set forth in Claim 2 wherein the control unit further comprises a light deflector mounted along a path between the light source and the light guide so as to sever the path of the light output when the cable is disconnected from the control unit.
10. The video imaging system as set forth in Claim 2 further comprising a jacket enclosing the channel and the light guide.

11. The video imaging system as set forth in Claim 2 further comprising an endoscope receptive of light from the camera.
12. The video imaging system as set forth in Claim 2 wherein light output from the light source is transmitted through the camera.
13. The video imaging system as set forth in Claim 11 further comprising:
a coupling mounted to the camera; and
a cable for connecting the coupling and the endoscope.
14. The video imaging system as set forth in Claim 2 wherein the control signal and the image data are de-multiplexed in the control unit.
15. The video imaging system as set forth in Claim 2 wherein light output from the light source is transmitted to the light guide.
16. The video imaging system as set forth in Claim 2 wherein light output of the light source is transmitted through the control unit.
17. The video imaging system as set forth in Claim 16 wherein the channel is detachable from the control unit and the camera.
18. The video imaging system as set forth in Claim 2 wherein the light guide is positioned within the control unit.

19. A video imaging system, comprising:
a camera for generating image data;
a control unit for controlling the camera; and
a cable for connecting the camera to the control unit, the cable including:
a channel for transmitting a control signal between the camera and the control unit followed by the image data therebetween when the camera is connected to the control unit;
a light guide for transmitting light to an object, wherein the camera is receptive of light reflected from the object thereby generating the image data; and
a jacket enclosing the channel and the light guide.
20. The video imaging system as set forth in Claim 19 wherein the control unit generates a command signal for operating the camera, and wherein the at least one channel then transmits the command signal from the control unit to the camera.
21. The video imaging system as set forth in Claim 10 wherein the camera operating information includes software programs, timing signal data, camera identification information or camera use information.
22. The video imaging system as set forth in Claim 19 further comprising a jacket enclosing the channel and the light guide.

23. A video imaging system, comprising:
- a camera for generating image data;
 - a control unit for controlling the camera;
 - a channel for bi-directionally transmitting multiplexed signals between the camera and the control unit; and
 - a light guide for transmitting light to an object, wherein the camera is receptive of light reflected from the object thereby generating the image data.
24. The video imaging system as set forth in Claim 23 wherein the multiplexed signals comprise at least the image data.
25. The video imaging system as set forth in Claim 24 wherein the multiplexed signals comprise at least a control signal in the nature of software programs, camera operating information, timing signal data, camera identification information or camera use information.
26. The video imaging system as set forth in Claim 24 wherein the multiplexed signals comprise at least a command signal for operating the camera.
27. A video imaging system, comprising:
- a camera for generating image data;
 - a control unit for controlling the camera;
 - a channel for transmitting a control signal between the camera and the control unit followed by a command signal therebetween; and
 - a light guide for transmitting light to an object, wherein the camera is receptive of light reflected from the object.

28. The video imaging system as set forth in Claim 27 wherein the control signal is in the nature of software programs, camera operating information, timing signal data, camera identification information or camera use information.

29. The video imaging system as set forth in Claim 27 wherein the command signal is operative to control the camera.

30. The video imaging system as set forth in Claim 27 wherein the channel then transmits the image data.

31. The video imaging system as set forth in Claim 27 wherein the control signal and the image data are multiplexed on the channel.

32. The video imaging system as set forth in Claim 30 wherein the control signal, the command signal and the image data are multiplexed on the channel.

33. The video system as set forth in Claim 27 further comprising a jacket enclosing the channel and the light guide.

34. A video imaging system, comprising:

- a camera for generating image data;

- a control unit for controlling the camera;

- a channel for transmitting a control signal between the camera and the control unit followed by the image data; and

- a light guide for transmitting light to an object, wherein the camera is receptive of light reflected from the object.

35. The video imaging system as set forth in Claim 34 wherein the control signal is in the nature of software programs, camera operating information, timing signal data, camera identification information or camera use information.

36. The video imaging system as set forth in Claim 34 wherein the command signal is operative to control the camera.

37. The video imaging system as set forth in Claim 34 wherein the channel then transmits the image data.

38. The video imaging system as set forth in Claim 34 wherein the control signal and the image data are multiplexed on the channel.

39. The video imaging system as set forth in Claim 37 wherein the control signal, the command signal and the image data are multiplexed on the channel.

40. The video system as set forth in Claim 34 further comprising a jacket enclosing the channel and the light guide.